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10/029,874

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Shinya Kano

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02/15/2006

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EXAMINER

OSBORNE, LUKE R

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                              |  |
|------------------------------|-------------------------------|------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/029,874 | Applicant(s)<br>KANO, SHINYA |  |
|                              | Examiner<br>Luke Osborne      | Art Unit<br>2123             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Status***

1. Claims 1-3 have been presented for reconsideration. No claims have been added or cancelled. Claims 1-3 are now pending in the instant application.
2. Applicants' arguments submitted 11/4/2005 have been fully considered, Examiners response is as follows.

### ***Claim Objections***

3. Examiner acknowledges the amendment to claim 2. Consequently the objection is withdrawn.

### ***Claim Objections***

4. Based on Applicant's amendment, and on the informal language present in the claims it is difficult to determine Applicants claimed invention and the following objections are made.

#### **Claim 1**

- Objection is made to the phrase "the three-dimensional model immediately before the part is deleted or modified is stored", it is difficult to determine what Applicant has intended to cover with such a phrase as noted in the claim interpretation section below.
- Objection is made to the phrase "each component" in line 2, it is difficult to determine to what "each component" belongs to or is.

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- Objection is made to the limitation “reproducing” in line 4, it is difficult to determine if the model has been produced before or not.

- Objection is made to the limitations on lines 4-6, it is difficult to determine the direct relation between “stacking parts” and the processing that modifies and deletes the model on the screen.

- Objection is made to the limitation of “reproducing” on line 7, it is difficult to determine if this reproduction action is viewed on the screen.

- Objection is made to the limitation of “if” in line 8, if the prior art does not meet the “if” condition it does not need to teach the limitations following the “if” condition.

- Objection is made to the limitation “certain part” in line 9, it is difficult to determine what roll the limitation “certain part” entails. The “certain part” as recited does not have to contain the cause of non-reproducibility.

- Objection is made to the limitation “the part” in line 11 it is difficult to determine which part “the part” is referring to.

- Objection is made to the informal language of “the three-dimensional model immediately before the part is deleted or modified is stored” found in lines 11-12. The limitation “three-dimensional model immediately before the part” is difficult to understand, specifically what “the part” is referring to and what the three-dimensional model looks like immediately before the part.

- Objection is made the phrase “the stored immediately preceding three-dimensional model” found in line 13, it is difficult to determine if the model of line

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11 is being referred to in phrase "the stored immediately preceding three-dimensional model".

- Objection is made to the limitation of "the non-reproducible part" found in line 18, it is difficult to determine what part "the non-reproducible part" is referring to.

- Objection is made to the phrase "a difference of the shape and reference data between both of the three-dimensional models is determined to extract shape and reference data which are missing from the non-reproducible part" found in lines 16-18. It is difficult to determine how the missing data needed to complete the part is found on the non-reproducible part, the Examiner postulates that the information necessary to complete the part is found in the reproducible part which is not missing any shape or reference data.

## **Claim 2**

- Objection is made to the limitation "the nonreproducible part" in line 2, it is difficult to determine what part the "nonreproducible" is.

## **Claim 3**

- Objection is made to the limitation "the part" in line 3, it is difficult to determine which part "the part" is referring to.

- Objection is made to the claim in general. Examiner is having trouble determining that if the modification plan to reproduce the part is shown on the screen why the user needed to execute that plan. From this claim it is apparent that the invention only finds the problem, and is incapable of executing the plan without the user implementing said plan.

Appropriate consideration is required.

***Claim Interpretation***

5. Claim 1 is being interpreted accordingly. The first limitation of "the three-dimensional model immediately before the part is deleted or modified is stored" is interpreted as "the three-dimensional model is stored, right before each additional part stacked is modified or deleted." This has been done for clarity. Likewise this is considered as the conventional "undo" feature. Appropriate consideration is required.

It is difficult for Examiner to determine what the meets and bounds of the limitation "the three-dimensional model immediately before the part is deleted or modified is stored". Applicant does not agree with the claim interpretation as given above (Applicant's Remarks: Page 5 lines 2-3). However, applicant does not give any clarification as to the meets and bounds of the limitation to which interpretation was necessary. The disparity between Examiners interpretation and the lack

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,828,963 to Ari Rappoport, hereafter "Rappoport."

Regarding claim 1, Rappoport discloses a three-dimensional CAD system which comprises allotting shape data indicating the shape of a part to each component, allotting reference data indicating a reference relation to between components, reproducing a three-dimensional model on a screen by sequentially stacking parts to be stacked on the already stacked parts based on the shape data and the reference data, processing to delete or modify parts of the three-dimensional model on the screen, reproducing the three-dimensional model with its part deleted or modified, and if reproduction of the three-dimensional model is stopped at a certain part, searching for the cause of non-reproducibility. See Figures 4, 5, 6 and the corresponding portions of Rappoport's specification for this disclosure.

In particular, Rappoport teaches "a three-dimensional CAD system which comprises allotting shape data indicating the shape of a part to each component, allotting reference data indicating a reference relation to between components, reproducing a three-dimensional model on a screen by sequentially stacking parts to be stacked on the already stacked parts based on the shape data and

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the reference data, processing to delete or modify parts of the three-dimensional model on the screen, reproducing the three-dimensional model with its part deleted or modified, and if reproduction of the three-dimensional model is stopped at a certain part, searching for the cause of non-reproducibility, wherein:

- the three-dimensional model immediately before the part is deleted or modified is stored [version and extraction/creation information, such as undo logs or rollback logs, can be created to back-out or re-write changes that fail when the CAD data exchange is taking place, or to recreate a particular instance of the CAD design (Column 5, lines 25-29)];
- the stored immediately preceding three-dimensional model is shown on the same screen together with the non-reproducible three-dimensional model whose reproduction was stopped at the certain part [FIG. 9B is a screen shot 905 detailing aspects of a selecting an object, which is one useful process to which the user emulation techniques can be applied (Column 13, lines 44-60)]; and
- a difference of the shape and reference data between both of the three-dimensional models is determined to extract shape and reference data which are missing from the non-reproducible part, and the extracted shape and reference data are converted into information indicating the cause of non-reproducibility and shown on the screen

[FIGs. 9A-C depict aspects of user emulation, which is a fallback or alternative technique used to perform the extraction and creation processes... the user emulation techniques are used to gather information on wither the source CAD model or the target CAD model (Column 11, line 65 – Column 12, line 9) FIG. 9B is a screen shot 905 detailing aspects of a selecting an object, which is one useful process to which the user emulation techniques can be applied (Column 13, lines 44-60)]" as claimed.

**Applicant's Argument**

Applicant cannot find where the teaching of Rappoport suggest the use of (undo) such a limitation in the manner defined in the present claims 1-3.

**Examiners Response**

Examiner provided such a citation teaching that undo logs or rollback logs, can be created to back-out or re-write changes that fail. Examiner finds this pertinent to the claimed limitation. Furthermore the use of the persistent bridge data structure 402' (Column 5 lines 16-17) that uses such logs teaches the claimed limitation.

**Applicant's Argument**

Rappoport is not concerned with the use of a CAD system itself, which includes processing a three-dimensional model displayed on a screen to delete or modify parts of the model, as required in the present claims. For this reason Rappoport cannot be used to contemplate or suggest the claimed limitations.

**Examiners Response**

Rappoport is directed to the use of a CAD system insomuch as Applicants claimed invention is also directed to the use of a CAD system. The user-emulation portion of the reference teaches such use of a CAD system when the other means of reproducing a part have failed.

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**Applicant's Argument**

Applicant cannot find where the teachings of Rappoport suggest that the stored immediately preceding three-dimensional model is shown on the same screen together with a non-reproducible three-dimensional model is shown on the same screen together with a non-reproducible three-dimensional model whose reproduction was stopped at the certain part.

**Examiners Response**

As part of the claim interpretation above the reference teaches the claimed invention. The displayed model stored immediately before the parts is deleted or modified shown is the same model as the non-reproducible three-dimensional model whose reproduction was stopped at the certain part. Furthermore it is neither clear nor necessary that the certain part to which the invention claims contains the non-reproducible part, which is the basis of applicant's arguments from here forward. Furthermore Applicant describes a prior art system on page 3 disclosing the purported difference between the reference and the claims.

Regarding claim 2, Rappoport discloses the three-dimensional CAD system according to claim 1, "wherein the non-reproducible part is shown at the pertinent position on the non-reproducible three-dimensional model on the screen [FIG. 9B is a screen shot 905 detailing aspects of a selecting an object, which is one useful process to which the user emulation techniques can be applied (Column 13, lines 44-60)]" as claimed.

Regarding claim 3, Rappoport discloses the three-dimensional CAD system according to claim 1, "wherein a modification plan to reproduce the three-dimensional model having the part deleted or modified is shown on the screen

[Figure 9B, Although optional, a bridge structure 402' is shown in FIG. 6. The bridge structure 402' can be universal data type or product representation--that is, an intermediate data type that is not, strictly speaking, the target data type. Thus, the bridge structure 402' can include additional information concerning the source CAD model, the target CAD model, and extraction and creation information that can be used for a lossless, two-way data exchange (Column 10, lines 1-8)]" as claimed.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

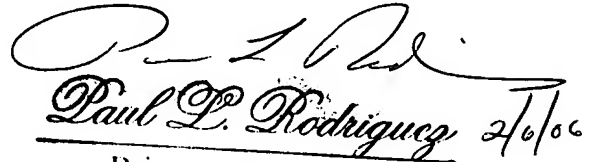
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke Osborne whose telephone number is (571) 272-4027. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LRO

  
Paul L. Rodriguez 2/6/06  
Primary Examiner  
Art Unit 2125